

AMENDMENTS TO THE CLAIMS

This listing of claims will replace all prior versions and listings of claims in the application:

LISTING OF CLAIMS:

1. (currently amended) A session relay method for relaying a session between a data transmission terminal and a data reception terminal, comprising the steps of:

a step of monitoring data amount within a data storing unit;

a step of setting a plurality of thresholds for an empty data amount;

a step of calculating a receivable amount so that the receivable amount comprises smaller than the empty data amount being calculated from the data amount by using a plurality of functions each of which are set for respective ranges of said plurality of thresholds; and

a step of informing the data transmission terminal of the receivable amount.

2. (previously presented) A session relay method for relaying a session between a data transmission terminal and a data reception terminal, comprising the steps of:

a step of measuring time while a data storing unit is empty;

a step of judging whether a transmission amount is reduced or not, based on the time and a network situation relating to throughput for a data transmission, and

a step of determining a transmissive amount based on the judgment.

3. (currently amended) A session relay method for relaying a session between a data transmission terminal and a data reception terminal, comprising the steps of:

a step of monitoring data amount within a data storing unit and measuring time while the data storing unit is empty;

a step of setting a plurality of thresholds for empty data amount,

a step of calculating a receivable amount so that the receivable amount comprises smaller than empty data amount being calculated from the data amount by using a plurality of functions each of which are set for respective ranges of said plurality of thresholds, and informing the data transmission terminal of the received amount; and

a step of judging whether a transmission amount is reduced or not, based on the time and a network situation relating to throughput for a data transmission, and determining a transmissive amount based on the judgment.

4. (canceled).

5. (previously presented) The session relay method as set forth in Claim 1 or Claim 3, comprising:

a step of setting a plurality of thresholds for the empty data amount and

determining the receivable amount with respect to respective ranges being determined by the thresholds,

wherein the receivable amount is proportional to a value being calculated by dividing the empty data amount by a positive number or a value being calculated by multiplying the empty data amount by a positive number, or is a predetermined value less than the empty data amount.

6. (previously presented) The session relay method as set forth in Claim 1 or Claim 3, comprising:

a step of setting a plurality of thresholds for the empty data amount and

calculating the receivable amount with a plurality of functions each of which are set with respect to respective ranges being determined by the thresholds, wherein each of the functions decreases the receivable amount according to a decrease in the empty data amount and each of the functions are continuous with each other.

7. (previously presented) The session relay method as set forth in Claim 2 or Claim 3, comprising:

a step of judging whether the transmissive amount is reduced or not based on the time and the network situation,

wherein the network situation includes information for specifying at least one of a user, an application, or priority of data,

wherein information for specifying the user comprises IP address, ID of VLAN, or MAC address,

wherein information for specifying the application comprises port number of TCP, and

wherein information for specifying priority of data comprises a TOS field in an IP header, a priority in a VLAN header, or a priority in a MPLS header.

8. (previously presented) The session relay method as set forth in Claim 2 or Claim 3, comprising:

a step of judging whether the transmissive amount is initialized or not based on the network situation when the data storing unit continues to be empty for a predetermined period.

9. (previously presented) The session relay method as set forth in Claim 2 or Claim 3, comprising:

a step of judging whether the transmissive amount is initialized or not based on the network situation when the data storing unit continues to be empty for a predetermined period,

wherein the network situation includes information for specifying at least one of a user, an application, or priority of data,

wherein the information for specifying the user comprises IP address, ID of VLAN, or MAC address,

wherein information for specifying the application comprises port number of TCP, and
wherein information for specifying priority of data comprises a TOS field in a IP header,
a priority in a VLAN header, or a priority in a MPLS header.

10. (canceled).

11. (currently amended) A session relaying apparatus for relaying a session between a
data transmission terminal and a data reception terminal, comprising:

a monitoring unit which monitors a data amount within a data storing unit;

a calculating unit, implemented by a processor, which calculates a receivable amount so
that the receivable amount comprises smaller than empty data amount being calculated from the
data amount; and

an informing unit which informs the data transmission terminal of the receivable amount,

wherein a plurality of thresholds is set for the empty data amount and the
receivable amount is calculated by using a plurality of functions each of which are set for
respective ranges of said plurality of thresholds.

12. (previously presented) A session relaying apparatus for relaying a session between a
data transmission terminal and a data reception terminal, comprising:

a measuring unit which measures time while a data storing unit is empty;

an initialization judging unit, implemented by a processor, which judges whether a transmission amount is reduced or not based on the time and a network situation relating to throughput for a data transmission; and

a determining unit which determines a transmissive amount based on the judgment.

13. (currently amended) A session relaying apparatus for relaying a session between a data transmission terminal and a data reception terminal, comprising:

a monitoring unit which monitors a data amount within a data storing unit;

a calculating unit, implemented by a processor, which calculates a receivable amount so that the receivable amount comprises smaller than empty data amount being calculated from the data amount;

an informing unit which informs the data transmission terminal of the receivable amount;

a measuring unit which measures time while the data storing unit is empty;

an initialization judging unit which judges whether a transmission amount is reduced or not based on the time and a network situation relating to throughput for a data transmission; and

a determining unit which determines a transmissive amount based on the judgment,

wherein a plurality of thresholds is set for the empty data amount and the receivable amount is calculated by using a plurality of functions each of which are set for respective ranges of said plurality of thresholds.

14. (canceled).

15. (previously presented) The session relaying apparatus as set forth in Claim 11 or Claim 13, wherein

a plurality of thresholds are set for the empty data amount and determining the receivable amount with respect to respective ranges being determined by the thresholds,

wherein the receivable amount is proportional to a value being calculated by dividing the empty data amount by a positive number or a value being calculated by multiplying the empty data amount by a positive number, or is a predetermined value less than the empty data amount.

16. (previously presented) The session relaying apparatus as set forth in Claim 11 or Claim 13, wherein

a plurality of thresholds are set for the empty data amount and

the receivable amount is calculated with a plurality of functions each of which are set with respect to respective ranges being determined by the thresholds, wherein each of the

functions decreases the receivable amount according to a decrease in the empty data amount and each of the functions are continuous with each other.

17. (previously presented) The session relaying apparatus as set forth in Claim 12 or Claim 13,

wherein the network situation includes information for specifying at least one of a user, an application, or priority of data,

wherein information for specifying the user comprises IP address, ID of VLAN, or MAC address,

wherein information for specifying the application comprises port number of TCP, and

wherein information for specifying priority of data comprises a TOS field in an IP header, a priority in a VLAN header, or a priority in a MPLS header.

18. (previously presented) The session relaying apparatus as set forth in Claim 12 or Claim 13, wherein

the initialization judging unit judges whether the transmissive amount is initialized or not based on the network situation when the data storing unit continues to be empty for a predetermined period.

19. (previously presented) The session relaying apparatus as set forth in Claim 12 or Claim 13, wherein

the initialization judging unit judges whether the transmissive amount is initialized or not based on the network situation when the data storing unit continues to be empty for a predetermined period,

wherein the network situation includes information for specifying at least one of a user, an application or priority of data,

wherein information for specifying the user comprises IP address, ID of VLAN, or MAC address,

wherein information for specifying the application comprises port number of TCP, and

wherein information for specifying priority of data comprises a TOS field in a IP header, a priority in a VLAN header, or a priority in a MPLS header.

20. (canceled).

21. (currently amended) A non-transitory computer readable medium storing instructions readable by computer for performing a method for relaying a session between a data transmission terminal and a data reception terminal, the method comprising:

monitoring a data amount within a data storing unit,

setting a plurality of thresholds for an empty data amount;

calculating a receivable amount so that the receivable amount comprises smaller than empty data amount being calculated from the data amount by using a plurality of functions each of which are set for respective ranges of said plurality of thresholds; and

informing the data transmission terminal of the receivable amount.

22. (previously presented) A for relaying a session between a data transmission terminal and a data reception terminal, the method comprising:

measuring time while a data storing unit is empty;

judging whether a transmission amount is reduced or not, based on the time and a network situation relating to throughput for a data transmission, and

determining a transmissive amount based on the judgment.

23. (currently amended) A non-transitory computer readable medium storing instructions readable by computer for performing a method for relaying a session between a data transmission terminal and a data reception terminal, the method comprising:

monitoring data amount within a data storing unit;

measuring time while the data storing unit is empty;

setting a plurality of thresholds for an empty data amount;

calculating a receivable amount so that the receivable amount comprises smaller than empty data amount, which is calculating from the data amount, and informing the data transmission terminal of the receivable amount by using a plurality of functions each of which are set for respective ranges of said plurality of thresholds,

judging whether a transmission amount is reduced or not, based on the time and a network situation relating to throughput for a data transmission; and

determining a transmissive amount based on the judgment.

24. (canceled).

25. (previously presented) The non-transitory computer readable medium as set forth in Claim 21 or Claim 23, comprising:

setting a plurality of thresholds for the empty data amount; and

determining the receivable amount with respect to respective ranges being determined by the thresholds,

wherein the receivable amount is proportional to a value being calculated by dividing the empty data amount by a positive number or a value being calculated by multiplying the empty data amount by a positive number, or is a predetermined value less than the empty data amount.

26. (previously presented) The non-transitory computer readable medium as set forth in Claim 21 or Claim 23, comprising:

setting a plurality of thresholds for the empty data amount and

calculating the receivable amount with a plurality of functions each of which are set with respect to respective ranges being determined by the thresholds, wherein each of the functions decreases the receivable amount according to a decrease in the empty data amount, and each of the functions are continuous with each other.

27. (previously presented) The non-transitory computer readable medium as set forth in Claim 22 or Claim 23, comprising:

judging whether the transmissive amount is reduced or not based on the time and the network situation,

wherein the network situation includes information for specifying at least one of a user, an application, or priority of data,

wherein information for specifying the user comprises IP address, ID of VLAN, or MAC address,

wherein information for specifying the application comprises port number of TCP, and

wherein information for specifying priority of data comprises a TOS field in an IP header, a priority in a VLAN header, or a priority in a MPLS header.

28. (previously presented) The non-transitory computer readable medium as set forth in Claim 22 or Claim 23, comprising:

judging whether the transmissive amount is initialized or not based on the network situation when the data storing unit continues to be empty for a predetermined period.

29. (previously presented) The non-transitory computer readable medium as set forth in Claim 22 or Claim 23, comprising:

judging whether the transmissive amount is initialized or not based on the network situation when the data storing unit continues to be empty for a predetermined period,

wherein the network situation includes information for specifying at least one of a user, an application, or priority of data,

wherein information for specifying the user comprises IP address, ID of VLAN, or MAC address,

wherein information for specifying the application comprises port number of TCP, and

wherein information for specifying priority of data comprises a TOS field in a IP header, a priority in a VLAN header, or a priority in a MPLS header.

30. (canceled).